of commercially insured patients aged <65 years and one of Medicare enrollees—we identified all adult patients (≥18 years) with schizophrenia (ICD-9-CM 295.XX) initiating treatment with asenapine versus OBAP between 2009 and 2012. All patients were required to be continuously enrolled for the 6-month periods before and after the date of the first prescription claim for asenapine or OBAP (this was deemed the "index date"). We used propensity-score matching to control for differences between the groups. Changes in HRU and costs (2012 dollars) between the 6 month pre- and post-index periods were calculated within each group and then compared across groups. **RESULTS:** A total of 259 asenapine patients were propensity matched to an equal number of OBAP patients; matched groups were similar in terms of age (mean: 39.9 years for asenapine patients vs. 41.8 years for OBAP patients, p=0.19), gender (58.7% vs. 56.8% female; p=0.66); and Charlson comorbidity index (mean: 0.47 vs. 0.52, p=0.65). Differences in HRU between the pre- and post-index periods nominally favored asenapine patients, including greater reductions in admissions (mean: -0.49 for asenapine patients vs. -0.40 for OBAP patients, p=0.38) and emergency room visits (-0.19 vs. -0.08, p=0.26); decreases in total healthcare costs also favored asenapine patients ($-7,609 vs. $-5,585, p=0.45). While pharmacy costs increased in both groups, the increase was significantly lower among asenapine patients ($922 vs. $1,707, p<0.05). **CONCLUSIONS:** Initiation of asenapine for schizophrenia is associated with significantly lower pharmacy costs than OBAP, and nominally greater decreases in levels of HRU and total healthcare costs.

PMH30

COST OF TAMPERING IN ABUSE OF PRESCRIPTION OPIOIDS

Vietri J[1], Masters E[2], Barsdorf AI[2], Mardekian J[2]

[1]Kantar Health, Horsham, PA, USA, [2]Pfizer, Inc., New York, NY, USA

OBJECTIVES: Abuse of prescription opioid medications through tampering, such as the chewing or crushing of pills, is associated with greater healthcare use. This study was conducted to assess the economic cost of such tampering in the United States. **METHODS:** Participants from the US National Health and Wellness Survey were recontacted for an online survey assessing use, misuse, and abuse of prescription opioid medications. All measures were self-reported. Abuse was defined as taking prescription opioid medication for the purpose of getting high in the prior 3 months, and use of the medication in any form other than the original was considered tampering. Direct medical costs were estimated by applying unit costs to self-reported healthcare visits. Unit costs were sourced from the Truven Market Scan (TMS) database, and the analysis was repeated using unit costs from the Medical Expenditure Panel Survey (MEPS). Respondents who reported abuse of prescription opioids through tampering were compared to those who reported abuse without tampering. Costs were compared using bivariate statistics as well as generalized linear models (GLMs) to adjust for confounders. **RESULTS:** Those who abused through tampering had significantly higher estimated healthcare costs during the 3-month recall period, with mean (unadjusted) incremental cost of $18,814 using TMS unit costs (p<0.001). This included higher mean costs for non-opioid-related medical visits ($11,944, p<0.001), opioid-related medical visits ($6,567, p<0.001), and drug rehabilitation costs ($303, p<0.001). Median total incremental costs were also higher by $3,803. GLMs indicated increased total direct costs with tampering after adjusting for confounders (p<0.001). Conclusions were similar using MEPS unit costs. **CONCLUSIONS:** Tampering with prescription opioid medications in order to get high is associated with significantly increased medical costs compared to those who abuse without tampering. Efforts to reduce tampering, such as the use of abuse-deterrent formulations of prescription opioid medications, may provide net healthcare savings.

PMH31

CHANGES IN HEALTHCARE COSTS ASSOCIATED WITH THE TREATMENT OF BIPOLAR DISORDER FOLLOWING INITIATION OF ASENAPINE VERSUS ARIPIPRAZOLE

Chitnis A[1], Wang R[1], Sun SX[2], Dixit S[2], Tawah A[1], Boulanger L[1]

[1]Evidera, Lexington, MA, USA, [2]Forest Research Institute, Jersey City, NJ, USA

OBJECTIVES: To assess differences in healthcare costs associated with initiation of asenapine versus aripiprazole among patients with bipolar disorder (BD). **METHODS:** We used two large US healthcare claims databases that collectively included commercially insured patients aged <65 years and Medicare enrollees to identify all adults (≥18 years) with BD (ICD-9-CM diagnosis codes 296.0X, 296.1X, 296.4X, 296.6X, 296.7X, 296.80, 296.81, 296.89) who began therapy with asenapine or aripiprazole between 2009 and 2012. Patients without continuous enrollment for the 6-month periods before and after the date of the first prescription claim for asenapine or aripiprazole ("index date") were excluded. Asenapine patients were then matched to aripiprazole patients using propensity scoring to control for differences between the groups. HRU and associated costs (2012 dollars) were deemed BD-related based on the presence of a BD diagnosis code on the relevant claim. Within each group, differences in BD-related HRU and costs were estimated between the pre- and post- index periods, and then compared across groups. **RESULTS:** A total of 2680 patients were included in the analyses (n=1,340 for each group); the groups were comparable with respect to age (mean age: 42.8 years for asenapine patients vs. 42.2 years for aripiprazole patients, p=0.27), percent female (70.3% vs. 70.1%, p=0.90), and Charlson comorbidity index (mean: 0.45 vs. 0.42, p=0.55). Asenapine patients had nearly a twofold greater decrease in total BD-related healthcare costs than aripiprazole patients (mean: -$863 for asenapine vs. -$490 for aripiprazole, p<0.05); BD-related outpatient costs also exhibited a significant decrease ($-2 vs. a $10 increase for aripiprazole patients, p<0.05). While pharmacy costs increased in both groups, the increase was significantly lower among asenapine patients ($886 vs. $1,518, p<0.05). **CONCLUSIONS:** As compared with aripiprazole, asenapine was associated with a reduction in total healthcare costs related to BD during the 6-month period following therapy initiation.

PMH32

PRESCRIPTION MEDICATION COSTS ASSOCIATED WITH CHILDHOOD ATTENTION DEFICIT HYPERACTIVITY DISORDER IN AMBULATORY CARE VISITS IN 2010

McConeghy RO, Pawar AM, Kogut S

University of Rhode Island, Kingston, RI, USA

OBJECTIVES: To estimate the national costs of prescription medications for childhood attention deficit hyperactivity disorder (ADHD) in the United States (U.S.) in 2010 and to identify differences in diagnosis and costs by gender and racial/ethnic background. **METHODS:** To determine childhood ADHD diagnosis and prescription medication use, we used ICD-9 and drug ID codes recorded from pediatric visits in the 2010 National Ambulatory Medical Care Survey (NAMCS). Our analysis included all formulations of the following medications: amphetamine salts, atomoxetine, dextroamphetamine, dexmethylphenidate, and methylphenidate. To calculate the costs of medication use, we multiplied the 2010 average wholesale price (AWP) by a presumed usual number of yearly doses and weighed these costs to reflect national estimates. We compared differences in overall medication cost by gender and race using the student's t test and evaluated differences in the proportion of patients diagnosed with ADHD using the chi-square test. **RESULTS:** Among pediatric visits in 2010, we found that 5.70% (n=7,201,548) were associated with a diagnosis of ADHD and, of those diagnosed, 67.29% (n= 4,846,163) had a mention of a prescribed ADHD medication. The nationally weighted sum of ADHD medication cost was $6.62 billion (mean=$1,336, SD=$1,220). Amphetamine salts prescriptions were associated with the highest overall cost ($3.67 billion). Overall drug expenditure did not differ by gender or race. We found a higher proportion of males were diagnosed with ADHD than females (7.97% vs. 3.48%, P < 0.001). Diagnosis with ADHD was less frequent among white children as compared with African-American children (5.79% vs. 7.09%, P = 0.012). **CONCLUSIONS:** We found that 5.70% of 2010 U.S. pediatric visits had a mention of ADHD diagnosis. We estimated that in 2010 U.S. expenditure for ADHD medications was $6.62 billion. Diagnosis of ADHD was more frequent among males and African-American children and less frequent among females and whites.

PMH33

THE BURDEN OF TREATMENT SWITCH IN PATIENTS WITH MAJOR DEPRESSION: A US RETROSPECTIVE ADMNISTRATIVE CLAIMS ANALYSIS

Perez V[1], Gauthier G[2], Guerin A[2], Francois C[3], Merikle E[1]

[1]Takeda Pharmaceuticals International, Inc, Deerfield, IL, USA, [2]Analysis Group, Inc., Montreal, QC, Canada, [3]Lundbeck LLC, Deerfield, IL, USA

OBJECTIVES: The rate of remission with treatment in major depressive disorder (MDD) is low; thus, switching medication is common. This study describes MDD patients in the US who switched to selected antidepressants; determines the rates of switching, discontinuation, and adherence; and quantifies the healthcare costs following treatment switch. **METHODS:** Adults with ≥2 MDD-related claims (ICD-9 codes: 296.2x, 296.3x) from the Truven Health Analytics MarketScan (1Q2001-4Q2012) database, who switched from an antidepressant to bupropion, citalopram, desvenlafaxine, duloxetine, escitalopram, fluoxetine, fluvoxamine, paroxetine, sertraline, venlafaxine, or vilazodone (index AD), were identified. The index date was the date of first treatment switch occurring on or after January 1, 2012. Continuous enrollment for ≥12 months prior to and ≥6 months following the index date was required. Patient and treatment characteristics during the 12-month baseline (i.e., pre-index) period are reported. Index antidepressant discontinuation (defined as a treatment gap of ≥45 consecutive days), adherence (defined as ≥80% of days covered with the index antidepressant), and switch rates (from the index antidepressant to another antidepressant) over the 6-month follow-up are reported. Healthcare costs incurred during the 6-month follow-up are also reported. **RESULTS:** 9,912 patients were included. On average, patients were 45.9 years old, and 72.7% were female. A mean of 1.9 antidepressants were prescribed during the baseline period. Patients had been on antidepressants for 230.6 days, on average, at baseline. During the 6-month follow-up, 16.8% of patients switched treatment and 28.0% discontinued the index antidepressant. The proportion of adherent patients was 52.2%. Patients incurred an average total healthcare cost of $9,835 (2013 US$) during follow-up. **CONCLUSIONS:** Switching is prevalent, and a notable financial burden is observed among switchers in the US. Discontinuation rates are high, and adherence is suboptimal. Future research is warranted to determine which switching strategies are associated with optimal treatment and costs.

PMH34

COST EFFECTIVENESS ANALYSIS OF DIFFERENT TREATMENT ALTERNATIVES IN CHILDREN WITH ATTENTION DEFICIT HYPER ACTIVITY DISORDER (ADHD)

El-Hamamsy M, Elsayed BM, Eid EM

Ain Shams University, Cairo, Egypt

OBJECTIVES: to determine the cost effectiveness of three treatment alternatives (medication, behavioral, and combined treatment of Atomoxetine and behavioral therapy) for attention deficit hyperactivity disorder in children from payer perspective with time horizon: 12 weeks **METHODS:** a prospective trial based economic evaluation was conducted on children in psychiatric out patients clinic at Abasseya Mental Hospital (AMH), Cairo ,Egypt who are 6 to 12 years of age (boys or girls), and had a clinical diagnoses of ADHD as defined in the Diagnostic and statistical Manual fourth edition (DSM_IV). Patients were classified into three groups: (Depended on psychiatric recommendation and parents preferences) medication only group (group I), behavioral therapy group (group II), and combined medication and behavioral therapy group (group III). Each treatment had both a cost and an outcome associated with it. Cost effectiveness ratio comprising the average total cost per child per unit of outcome three months-Quality Adjusted Life Years "QALY" in each of the three groups. **RESULTS:** The combined therapy was associated with the highest cost effective ratio C/E Ratio of 7695.524 LE per QALY, medication therapy was 4381.927 LE per QALY, While C/E Ratio of behavioral therapy was 3337.339 LE per QALY. According to base-case analysis, combined therapy resulted in greatest health benefits but at the same time it was the most expensive treatment option. Behavioral therapy was the least effective and cheapest option. The sensitivity anal-